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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,027	02/25/2004	Anthony J. Morris	30302/013807	3896
4743	7590	03/28/2006		
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			EXAMINER DEXTER, CLARK F	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/787,027

Applicant(s)

MORRIS ET AL.

Examiner

Clark F. Dexter

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-14, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15, 16 and 19 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-14, drawn to cutting tool, classified in class 83, subclass 469.
  - II. Claims 15-19, drawn to a method of cutting channels, classified in class 83, subclass 13.
  - III. Claims 20-21, drawn to rocket engine combustion chamber and nozzle, classified in class 60.
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another and materially different process; for example, it can be used to cut any of various types of materials including wood.
4. Inventions I and III are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a materially different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP §

Art Unit: 3724

806.05(g)). In this case, the product as claimed can be made by another and materially different apparatus; for example, by the process disclosed in the Background section of the present application.

5. Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process; for example, by the process disclosed in the Background section of the present application.

6. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Mr. Michael Chinlund on November 8, 2005 a provisional election was made without traverse to prosecute the invention of Group II, claims 15-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-14, 20 and 21 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 3724

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Specification***

9. The disclosure is objected to because of the following informalities:

In paragraph 0020, line 6, "20" is inaccurate and should read --22--.

In paragraph 0023, line 8, "86" is not shown and appears to be inaccurate, and it seems that it should be deleted or the like.

Appropriate correction is required.

### ***Claim Objections***

10. Claims 15-18 are objected to because of the following informalities:

In claim 15, lines 4-5, the recitation "the rotating of the cutting tool causing the rotating of the cutting blades" is not sufficiently clear since the cutting blades are part of the cutting tool.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 15, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (i.e., APA) in view of Averd, pn 2,831,514.

Regarding claim 15, the present application discloses APA that includes:

a method of cutting channels in a liner of a rocket engine combustion chamber or a rocket engine nozzle, the method comprising:

cutting the liner along a channel direction at a cutting depth with a cutting tool, the cutting tool comprising a pair of cutting blades, the rotating of the cutting tool causing the rotating of the cutting blades.

Art Unit: 3724

The APA lacks cutting tool comprising at least one washer disposed between the cutting blades and being concentric with the cutting blades, the washer adapted to be freely rotatable relative to the cutting blades, a radius of the washer being smaller than a radius of the cutting blades;

and limiting the cutting depth by a perimeter surface of the washer contacting a portion of the liner between the channels cut by the pair of cutting blades.

Regarding claim 16, the present application further discloses that the APA cuts the channels when the cutting tool is moved in the channel cutting direction, but lacks:

the limiting comprising the perimeter surface of the washer rolling on the portion of the liner between the channels upon contact with the portion of the liner between the channels when the cutting tool is moved in the channel cutting direction.

Avard discloses a cutting device with such a washer (e.g., 28 or 30) adjacent to a circular cutting blade (e.g., see Figs. 4-6) and teaches that such a device provides means to positively limit the depth of cut in the surface of the workpiece (i.e., the bark) so as to prevent damage to the workpiece (i.e., the wood). Therefore, it would have been obvious to one having ordinary skill in the art to provide such a washer adjacent to the circular cutting blades of the APA for the benefits taught by Avard.

Regarding claim 19, the present application discloses APA that includes:

a method of cutting channels in a part, the method comprising:

cutting a pair of adjacent channels in the part with a pair of rotatably coupled cutting blades.

The APA lacks limiting a depth of cut of the pair of adjacent channels by an outer surface of at least one washer freely rolling on an uncut portion of the part between the pair of adjacent channels when the cutting blades are moved in a channel cutting direction, the at least one washer having a smaller radius than a radius of each of the cutting blades, and the at least one washer being disposed between the cutting blades and being concentric therewith.

As described above, Avard discloses a cutting device with such a washer (e.g., 28 or 30) adjacent to a circular cutting blade (e.g., see Figs. 4-6) and teaches that such a device provides means to positively limit the depth of cut in the surface of the workpiece (i.e., the bark) so as to prevent damage to the workpiece (i.e., the wood). Therefore, it would have been obvious to one having ordinary skill in the art to provide such a washer adjacent to the circular cutting blades of the APA for the benefits taught by Avard.

### ***Allowable Subject Matter***

13. Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Art Unit: 3724

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clark F. Dexter whose telephone number is (571)272-4505. The examiner can normally be reached on Mondays, Tuesdays, Thursdays and Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571)272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Clark F. Dexter**  
**Primary Examiner**  
**Art Unit 3724**

cf  
March 20, 2006